The Winter Severity Index

Winter Weather

Harvest plans in northern Wisconsin very from year to year, in part depending on winter weather. Deer have both physiological and behavioral adaptations that allow them to endure Wisconsin winters-provided the deep snow and extremely cold temperatures do not persist too long. In very severe winters, losses of deer in northern Wisconsin can be dramatic (as much as 30% of the herd). Even in mild winters, some animals will die. In the south, winter weather rarely impacts deer survival. To keep tabs on winter weather conditions, the DNR maintains a Winter Severity Index (WSI) at about 34 locations throughout northern Wisconsin.

The WSI was developed in the early 1970's. It is calculated by adding the number of days with 18 inches or more of snow on the ground to the number of days when minimum temperatures were 0 degrees Fahrenheit or below between December 1 and April 30. If you think of it as adding up points, a day when both conditions occurred would get two points. At the end of the winter all the points are added up, resulting in the WSI number for the whole winter. A winter with an index of less than 50 is considered mild, 50 to 79 is moderate, 80 to 99 is severe and over 100 is very severe.

The following is an update of the current WSI in northern Wisconsin and is posted based on the most recent data available.

Winter Severity Index
2010-2011

STATION	DECEMBER TEMP	DECEMBER SNOW	JANUARY TEMP	JANUARY SNOW	FEBRUARY TEMP	FEBRUARY SNOW	MARCH TEMP	MARCH SNOW	APRIL TEMP	APRIL SNOW	TOTAL TEMP	TOTAL SNOW	WSI TOTAL	(thru April) Severity
Alvin	5	0	13	0	7	0	5	0	0	0	30	0	30	Mild
Antigo	7	0	11	0	6	0	10	1	0	0	34	1	35	Mild
Barnes	8	2	13	9	12	0	7	0	0	0	40	11	51	Moderate
Barron	10	3	18	0	13	6	2	3	0	0	43	12	55	Moderate
Brule	9	0	12	7	10	6	2	0	0	0	33	13	46	Mild
Crandon	7	0	11	0	8	0					26	0	26	Mild
Copper Falls SP	7	0	14	5	8	8	3	0	0	0	32	13	45	Mild
Eagle River	5	0	11	0	7	0					23	0	23	Mild
Florence East	4	0	10	0	6	0	2	0	0	0	22	0	22	Mild
Gile	3	6	11	23	8	26	5	18	0	0	27	73	100	Very Severe
Gordon	10	0	16	0	13	0	4	0	0	0	43	0	43	Mild
Grantsburg	10	0	17	0	13	1	2	0	0	0	42	1	43	Mild
Hayward	9	0	13	0	13	0	6	0	0	0	41	0	41	Mild
Ladysmith	11	0	21	1	15	13	11	1	0	0	58	15	73	Moderate
Mercer	5	4	12	17	10	16	6	0	0	0	33	37	70	Moderate
Merrill	8	0	11	0	9	10	6	27	0	1	34	38	72	Moderate
Minong	13	0	15	3	14	12	7	0	0	0	49	15	64	Moderate
Park Falls	6	0	16	0	9	0	7	7	0	0	38	7	45	Mild
Pattison	12	1	18	7	12	8	3	0	0	0	45	16	61	Moderate
Pembine	11	0									11	0	11	Mild
Phillips	6	0									6	0	6	Mild
Prentice	6	0	13	0	8	0	10	1	0	0	37	1	38	Mild
Rhinelander	7	0	11	0	7	0	5	1	0	0	30	1	31	Mild
Saxon	5	0	6	7	5	11	2	0	0	0	18	18	36	Mild
Spooner	10	0	15	0	11	0	5	0	0	0	41	0	41	Mild
Summit Lake	7	2	11	0	6	0	10	9	0	0	34	11	45	Mild
Tomahawk	7	0	13	0	10	0	8	0	0	0	38	0	38	Mild
Trout Lake	5	0	10	3	7	12	6	0	0	0	28	15	43	Mild
Upson	5	8	13	24	8	16	7	0	0	0	33	48	81	Severe
Wausaukee	4	0	9	0	7	0	3	0	0	0	23	0	23	Mild
Webster	13	0	20	0	13	0	3	0	0	0	49	0	49	Mild
White Lake	7	3									7	3	10	Mild
Winter	8	0	11	0	11	0	1	0	0	0	31	0	31	Mild
Woodruff	5	0	12	0	8	0	6	0	0	0	31	0	31	Mild
Averages	7.6	0.9	13.1	3.5	9.6	4.8	5.3	2.4	0.0	0.0	32.7	10.6	42.9	
SD	2.7	1.9	3.3	6.7	2.8	6.9	2.8	6.2	0.0	0.2	11.7	16.6	20.8	

Total WSI	8.5	25.1	39.5	47.3 *	47.3 *	=IF(N37<50,"Mild", IF(N37<80,